NEPSR 2010
Pipeline Safety

Ogunquit, Maine

Don Ledversis,
Rhode Island Division of Public Utilities and Carriers

811 Know what's below. Call before you dig.

RHODE ISLAND DIVISION OF PUBLIC UTILITIES

ARP Program 2009

Accelerated Replacement Program

Replaced 31 miles of CI/Bare Steel

ARP Program 2009

Accelerated Replacement Program

Moved 2170 inside H.P. meter sets to the outside……

ARP Program 2010

Ramping up the mileage

Move another ~2000 inside H.P. meter sets to the outside……


DIG SAFE
MA - ME - NH - RI - VT
1-888-344-7233
1-888-DIG-SAFE

25 Years Later

1984-2009

Effective Nov. 1, 2009

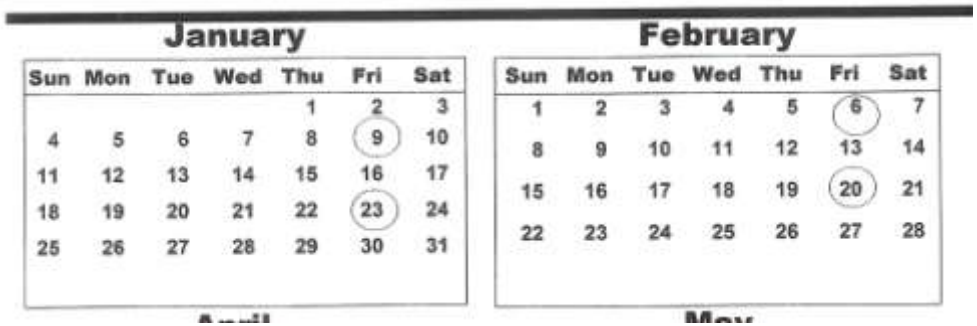
Pre-Mark before you call 

(if under 500 feet)


09/03/2010

3-day ticket

Ticket valid for 60 days



January

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

72 Wisteria
(unusual corrosion issue)


ReadOne Pro
18/03/2010


18/03/2010


18/03/2010


18/03/2010

49 CFR PART §192.353(a) Customer Meters and regulators: Location

Each meter…must be… protected from corrosion

Pope St.
(outdated pipe)


3/18/2010


3/18/2010


3/18/2010


3/18/2010

Pope St.
(2nd visit)

27/05/2010


FIRE EXTINGUISHER
PEMALL
DRY CHEMICAL MODEL PA 10MT ABC-C
STORED PRESSURE
INSPECTION AND MAINTENANCE
CAUTION
TO RECHARGE
Pem All Fire Extinguisher Corp.
UNDERWRITERS LABORATORIES
NO. J8526538


CTIONS
PEMCO

Laurel Hill
(vacuum)


05/03/2010


05/03/2010


05/03/2010


GENERAC
05/03/2010

49 CFR PART §192.355(a) Customer Meters and regulators: Protection from damage.

(a) Protection from vacuum... If the customer's equipment might create a vacuum a device must be installed to protect the system.

500 Year Flood

49 CFR PART §192.355(b)(3) Customer Meters and regulators: Protection from damage.

(b)(3) Service regulator vents and relief vents… must: Be protected from damage caused by submergence in areas where flooding may occur.


SPORTS
AUTHORITY


CVS/pharmacy
CVS


Gas Pipe on Bridge

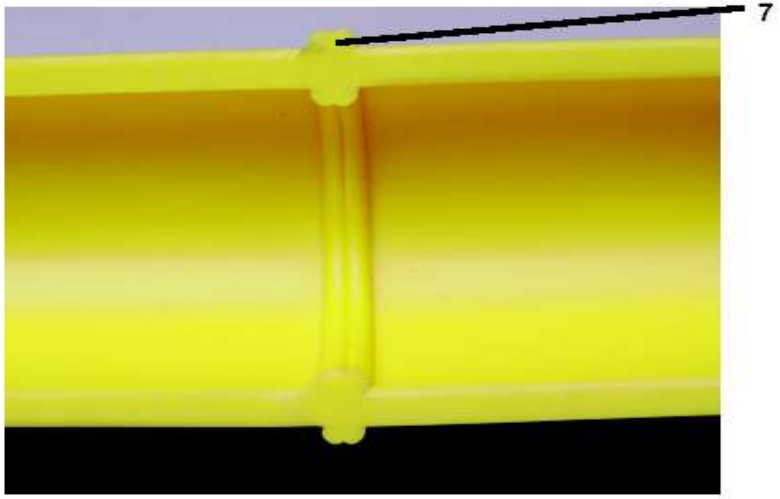
Plastic Pipe Fusion

49 CFR PART §192.285(b)(1)
Plastic pipe. Qualifying persons to make joints.

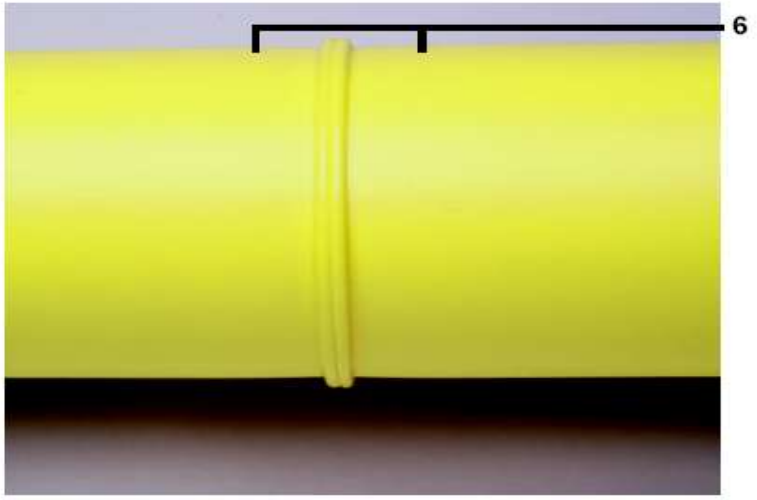
(b)(1) The specimen joint must be visually examined …after assembly …and found to have the ***same appearance as a joint or photographs of a joint*** *that is acceptable under the procedure*

ACCEPTABLE FUSIONS

5. Proper double roll-back bead
6. Proper alignment



7. Proper double roll-back bead



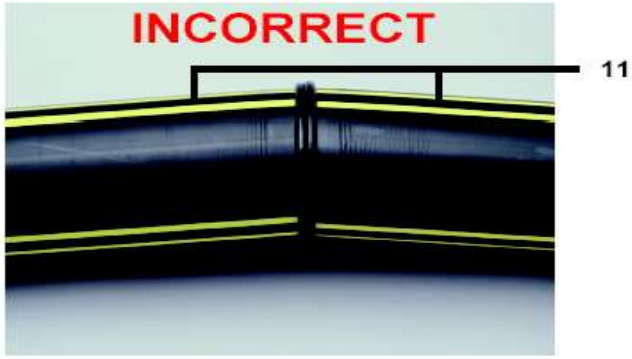
6. Proper alignment

8. No gaps or voids when bent

UNACCEPTABLE FUSIONS

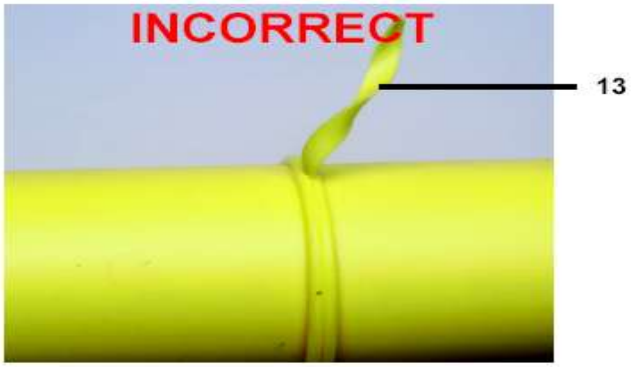
9. Insufficient heat time; melt bead too small

10. Excessive heat time or pressure applied during heating; melt bead too large

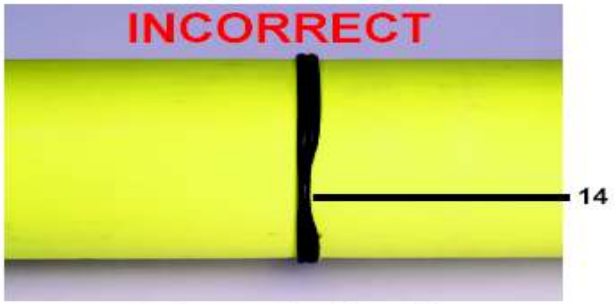


11. Pipe angled into fusion unit

12. Improper "High-Low" alignment



13. Incomplete face off or failure to re-



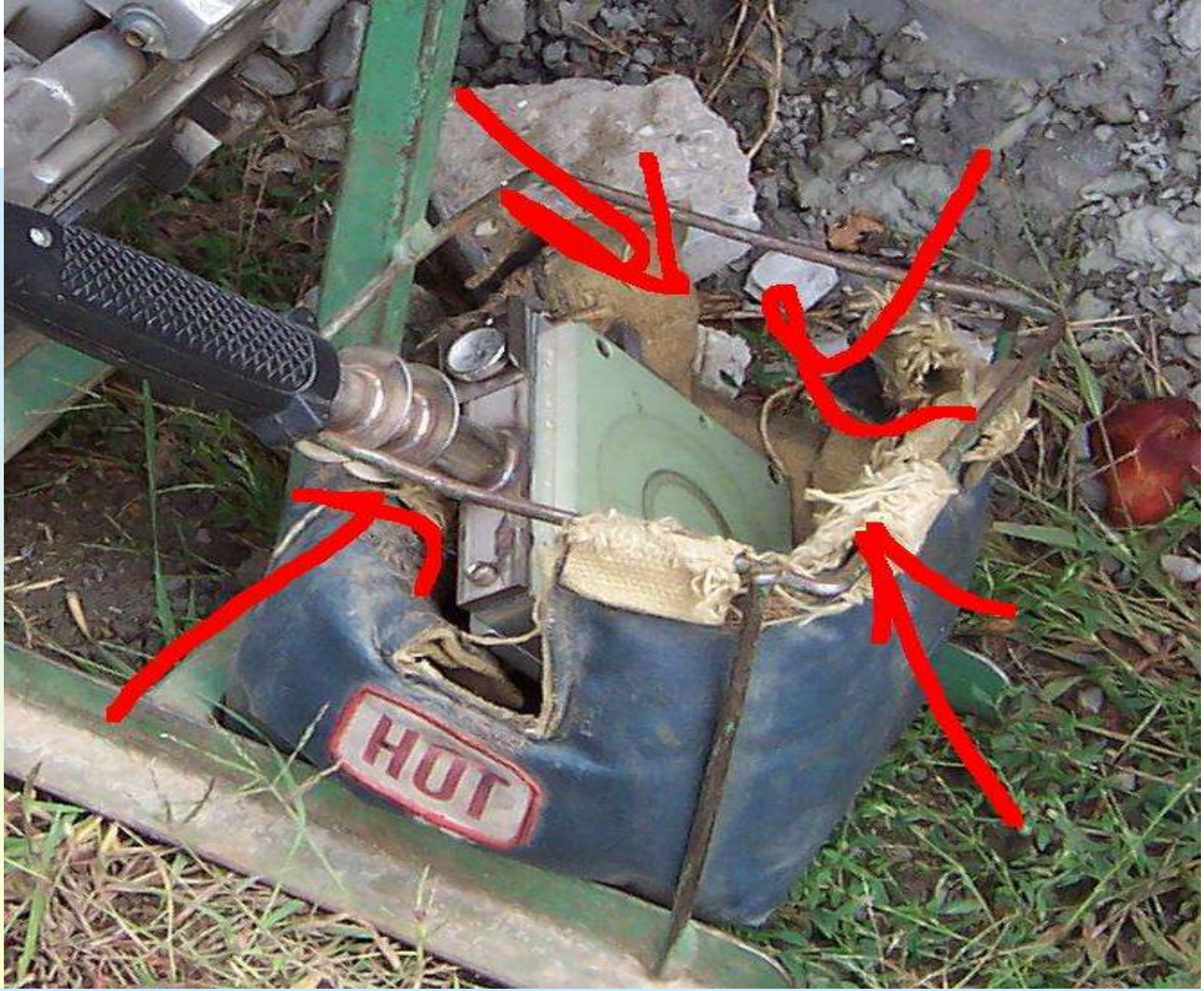
14. Incomplete face off

NAPSR

Distribution New Construction
St. Louis, Missouri April 20, 2010
Inspection findings related to Plastic Materials

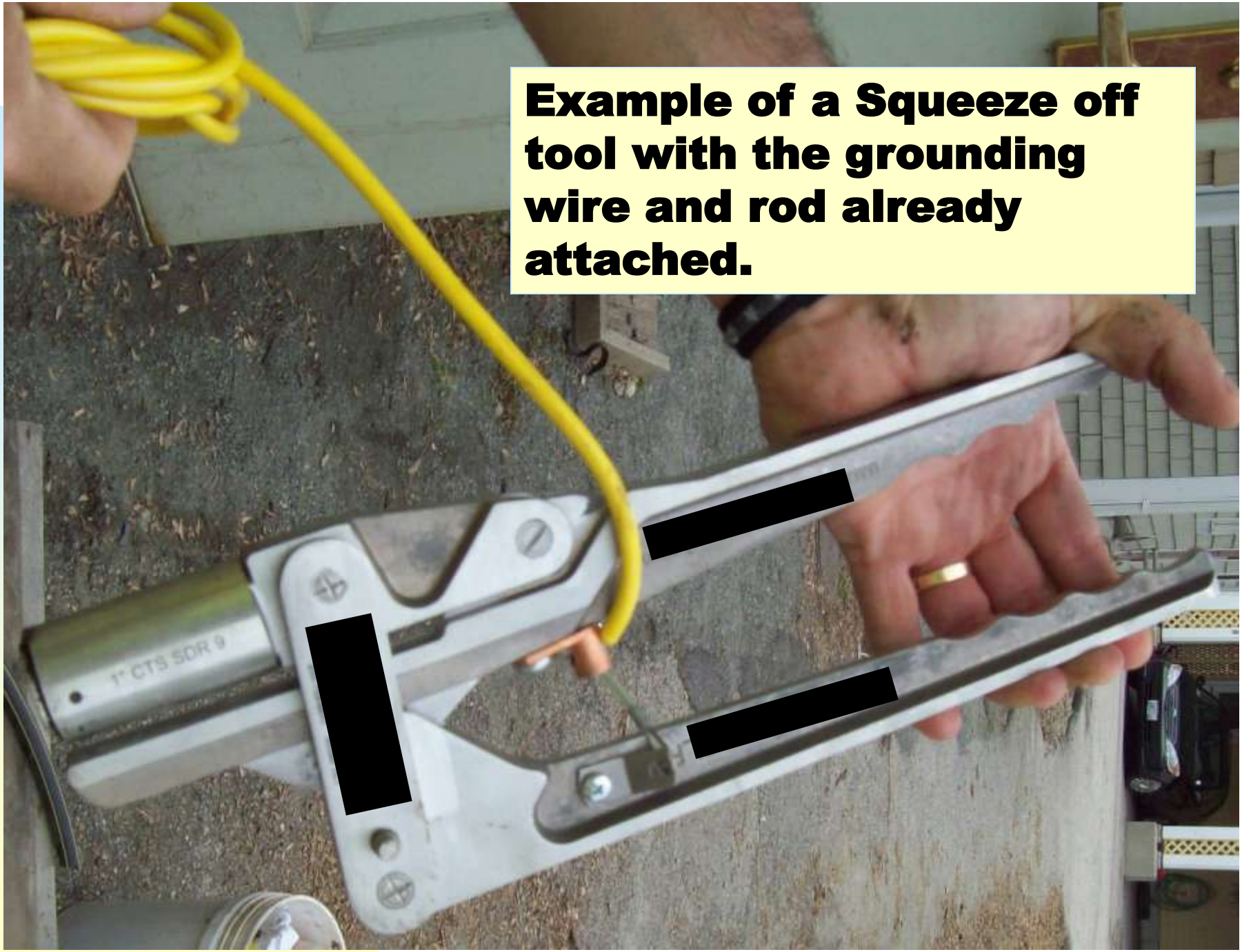
811
Know what's below.
Call before you dig.


02/



Ripped heater bag and dirty heat plate.

Rusty facing blades, your prone to failure.


Example of a Squeeze off tool with the grounding wire and rod already attached.


What about grounding when you cut off a bare steel service?
21/06/2010


21/06/2010


11/05/2010

49 CFR PART §192. 281 Plastic pipe.

(c) Heat-fusion joints. Each heat-fusion joint on plastic pipe must comply with the following:

(1) A butt heat-fusion joint must be joined by a device that holds the heater element square to the ends of the piping, compresses the heated ends together, and ***holds the pipe in proper alignment*** *while the plastic hardens.*

PLASTICS·PIPE·INSTITUTE™

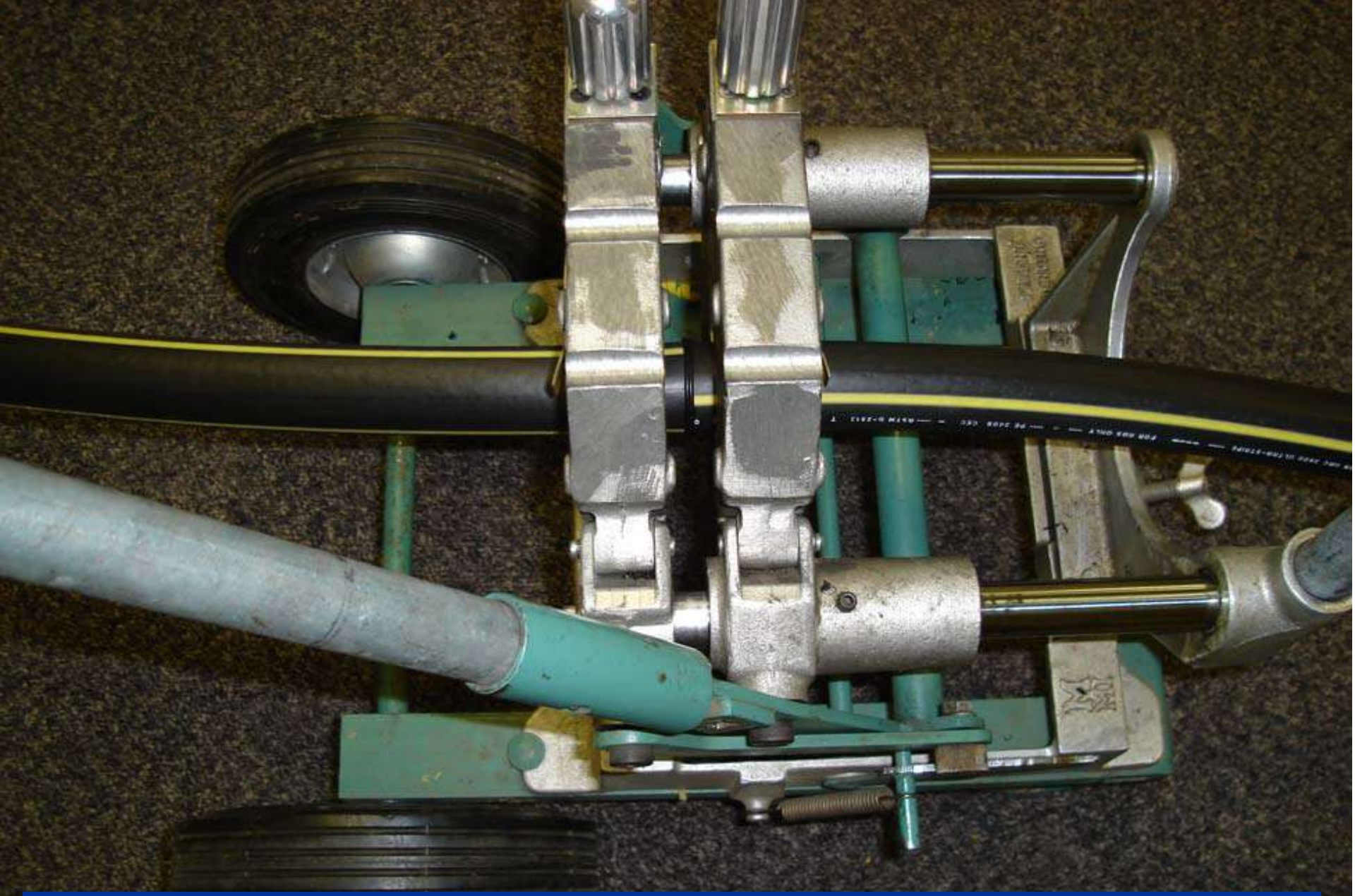
Generic Butt Fusion Joining Procedure for Field Joining of Polyethylene Pipe TR-33/2006

Coiled pipe is available in sizes through 6” IPS. Coiling may leave a bend in some pipe sizes that must be addressed in the preparation of the butt fusion process. There are several ways to address this situation:

1. Straighten and re-round coiled pipe before the butt fusion process. (ASTM D2513 requires field re-rounding coiled pipe before joining pipe sizes larger than 3” IPS.)

2. If there is still curvature present, install the pipe ends in the machine in an “S” configuration with print lines approximately 180° apart in order to help gain proper alignment and help produce a straight joint. See Figure A 2

3. If there is still a curvature present, another option would be to install a straight piece of pipe between the two coiled pipes.
Every effort should be made to make the joint perpendicular to the axis of the pipe.



Alignment of Coiled Pipe Ends Through a Butt Fusion Machine

Chevron Plexco®

Bulletin No. 101

Before You Start:

- Make sure all tools are clean and fit for the job.
- Inspect polyethylene pipe for cuts, gouges, and deep scratches, and remove these pipe sections before fusing the pipe.
- Remove tension* in the line before making any connections.
- Make sure the correct time and temperature are used.
- Square pipe ends to remove any damaged or "necked down" surface.
- Wipe pipe ends with CLEAN dry cotton rag to remove any foreign substance and cuttings from I.D. (avoid rags of synthetic fiber that may melt and char against heater surface).
- See additional information on Page 18.

*If direct burial, polyethylene pipe should be snaked in the ditch and the temperature of the pipe should be approximately the same as the soil at the installed depth before completing the tie-in. Fusion of coils should be done so that the joined coils form an "S" to reduce stress at the joint. If the polyethylene pipe has been inserted in an existing line, it should be allowed to cool to the casing pipe temperature prior to final tie-in. For each 10°F temperature drop, 100 feet of polyethylene pipe shrinks approximately one (1) inch.

- Check heating iron fusion surface temperature with temperature indicating crayons or pyrometer.
- Clean heater faces after every joint with wooden implement (NEVER use metal tools).
- Do a trial fusion at the start of each day.
- To remove static electricity prior to cutting or tapping a pressurized gas line, spray polyethylene pipe with water/soap solution or water/glycol solution and ground with a solution wetted cloth.
- Fusion equipment may not be explosion-proof—take safety precautions if fusing in a combustible atmosphere.
- Shield fusing equipment from inclement weather and winds.

Reportable Incident 2010

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
OFFICE OF PIPELINE SAFETY

PIPELINE SAFETY REGULATIONS

PART 191

ANNUAL REPORTS, INCIDENT REPORTS
AND
SAFETY RELATED CONDITION REPORTS
(Current through Amendment 14)

It was a classic textbook case of not following State laws.

A Massachusetts bulldozer operator without a valid Rhode Island Hoisting license…

And without a valid DigSafe number…


Was grading along with his bucket…
04/05/2010


When he hit something…
04/05/2010


And then he hit something again…
04/05/2010

Until he ruptured a 100 pound gas line feeding a regulator station…

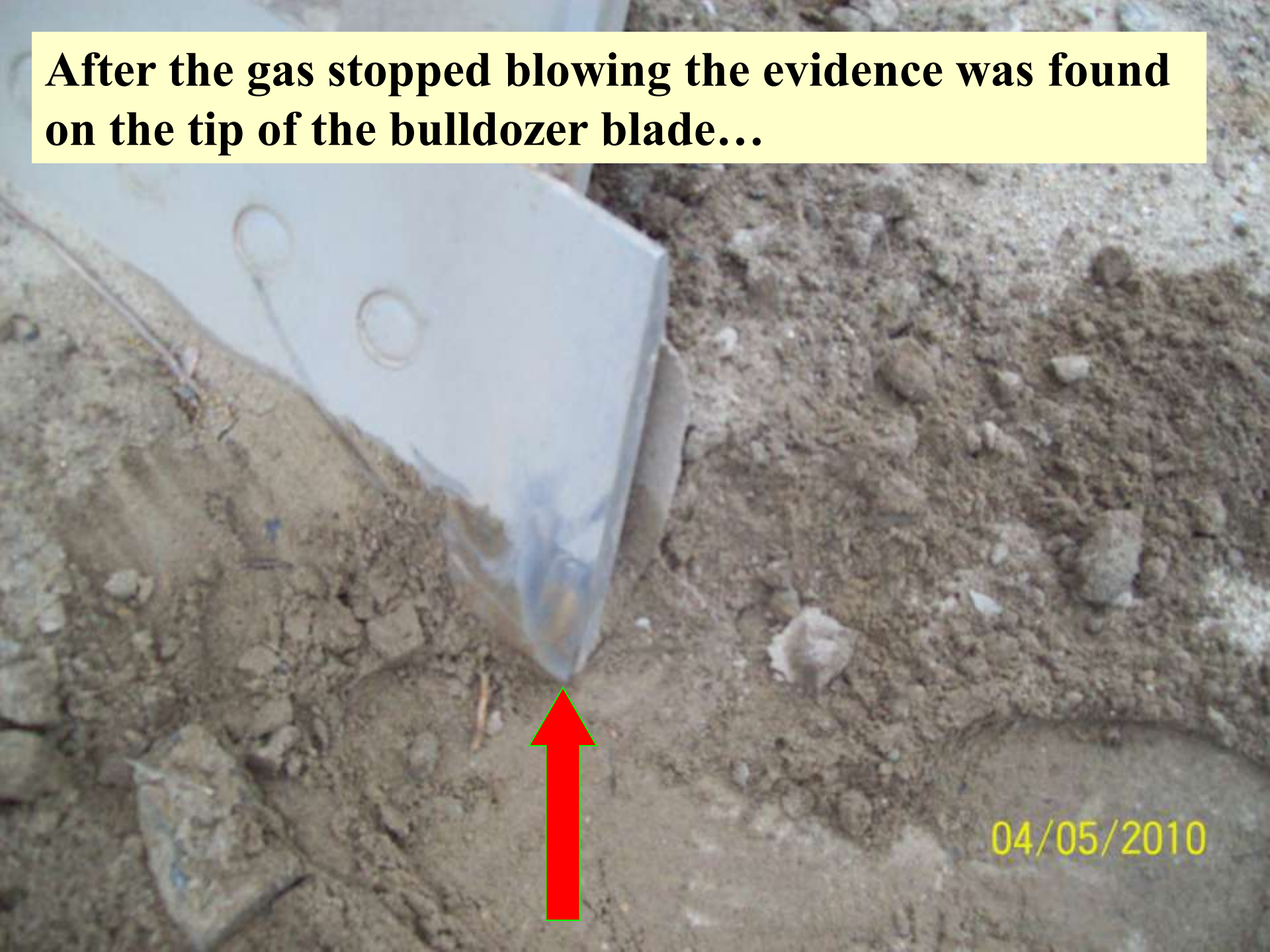

04/05/2010

Unfortunately no valve was found to minimize outages so a Williamson stopper valve had to be installed

With a large cutter…


And a large plug to stop the flow of gas…
04/05/2010

After the gas stopped blowing the evidence was found on the tip of the bulldozer blade…



A large repair sleeve needed to be welded over the hole….

Some of the residual gas ignited during welding…

The welding continued into the night…

In conclusion,

100 pounds blowing for numerous hours to the tune of 76 miles of 12 inch pipe… (San Bruno?)

In conclusion,

The General Contractor had a DigSafe number for digging the foundation to the new school that was updated every month for 2 years, except the scope of work was never changed.

The End